

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No
PCT/DK2004/000711

International filing date (day/month/year)
18.10.2004

Priority date (day/month/year)
20.10.2003

International Patent Classification (IPC) or both national classification and IPC
F02M65/00

Applicant
IB OBEL PEDERSEN A/S

1. This opinion contains indications relating to the following items:

- ☒ Box No I Basis of the opinion
- ☐ Box No II Priority
- ☐ Box No III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No IV Lack of unity of invention
- ☒ Box No V Reasoned statement under Rule 43bis 1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No VI Certain documents cited
- ☒ Box No VII Certain defects in the international application
- ☒ Box No VIII Certain observations on the international application

2 **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66 1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220

3 For further details, see notes to Form PCT/ISA/220

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/DK2004/000711

Box No. I Basis of the opinion

- 1 With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
- 2 With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
- 3 ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished. ~
- 4 Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/DK2004/000711

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Statement

Novelty (N)	Yes: Claims	1
	No: Claims	X
Inventive step (IS)	Yes: Claims	X
	No: Claims	1
Industrial applicability (IA)	Yes: Claims	1
	No: Claims	

2 Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Document JP 60 187 758 A (D1) (abstract, fig. 1-3) , which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses a method for testing a valve, preferably a comparatively large fuel injection valve (6) for a comparatively large diesel engine, by supplying pressurised oil to the inlet side of the valve (6), by which method the oil pressure on the inlet side gradually increases while being recorded, whereby the pressure increase is manually momentarily interrupted at the moment when the opening pressure of the valve is exceeded, corresponding to the pressure on the inlet side dropping, whereafter the opening pressure is used to decide whether the injection valve in its present state is suitable for use in the engine.
 - 1.1 The subject-matter of independent claim 1 differs from the disclosure of D1 in that a compressed air supply for providing the oil pressure on the inlet side being electronically momentarily interrupted at that moment.
for at same reason
 - 1.2 The problem to be solved by the present invention may therefore be regarded as to achieve the opening pressure during few ms.
 - 1.3 However, these features have already been employed for the same purpose in a similar test injector , see document DE 198 01 640 C (column 2, line 54 - column 3, line 10, fig. 1) which discloses a testing device for injector with a pneumatic pump and an electronic meter. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to use an electronic control pneumatic pump instead of a manual pump according to document D1, thereby arriving at an testing device system according to claim 1. The subject matter of claim 1 does therefore not involve an inventive step (Art. 33(3) PCT).

Re Item VII

Certain defects in the international application

- 2.1 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
- 2.2 The description is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.

Re Item VIII

Certain observations on the international application

- 3 The relative term "electronically momentarily interrupted" used in claim 1 has no well-recognised meaning and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.